

REMARKS/ARGUMENTS

Claims 7, 13, 20, 22-26, 28-31, and 39-42 are currently pending. Claims 7, 13, 20, and 22-26 have been amended herein. The amendments to claims 22-26 adjust claim dependencies following the deletion of claim 21. The remaining amendments are addressed below. Applicants respectfully request reconsideration of the captioned application in view of the foregoing amendments and the following remarks.

I. Rejection under 35 U.S.C. § 102

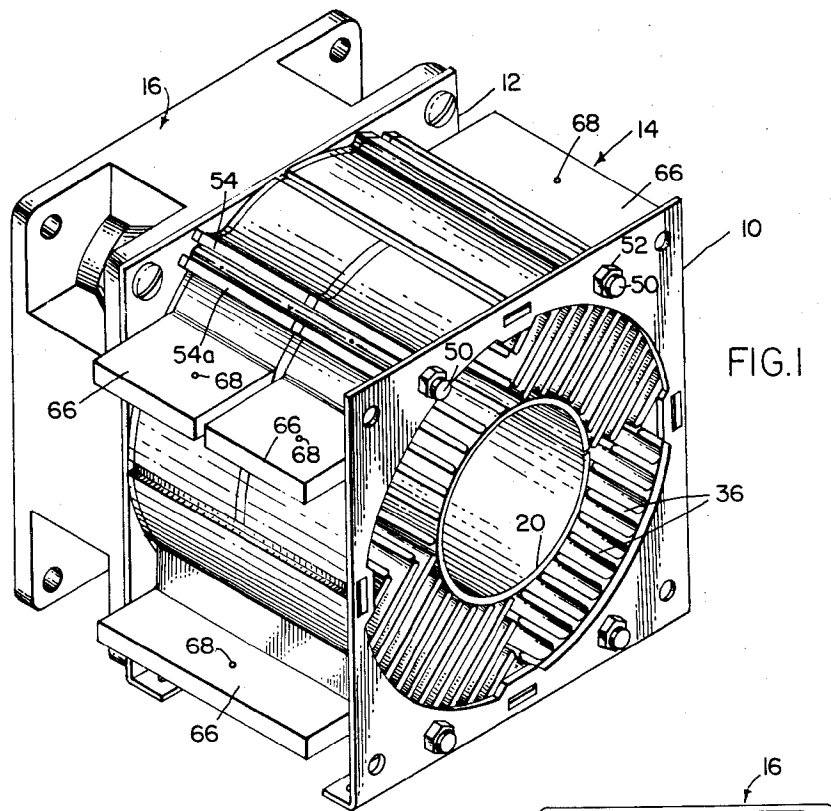
Sections 1-2 of the office action rejected claims 7, 13, 21-26 and 28-31 under 35 U.S.C. § 102(b) as allegedly being anticipated by Coe (U.S. 3,149,666). Claim 21 has been canceled. Applicants respectfully traverse the remaining rejections.

For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 U.S.P.Q.2d 1315, 1317 (Fed. Cir. 1988). Inherent anticipation requires that the missing descriptive material is necessarily present, not merely probably or possibly present in the prior art. *In re Robertson*, 169 F.3d 743, 49 USPQ.2d 1949 (Fed. Cir. 1999).

Coe does not teach, show, or suggest every element of the presently claimed invention. Coe teaches a cooler device that includes a plurality of thermally conductive elements (22, 24, 26, 28, 30 and 32) oriented about a central tube (20); see, Figures 1, 3 and 4. The Examiner has suggested that Coe shows an exterior surface with a substantially flat surface with a mounting

ridge (22) which is capable of being mounted to a clip to hold a component against the flat portion.

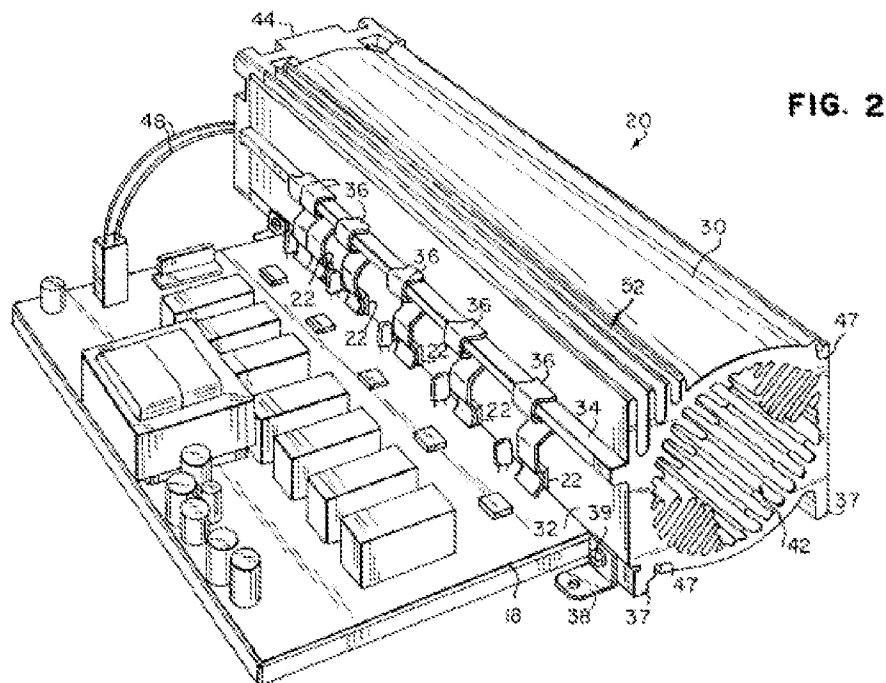
First, Coe appears to teach away from the concept of using a mounting clip. Figure 1 of Coe is reproduced below.



Regarding attaching devices to be cooled, Coe notes, “each [platform 66] is provided with a small hole 68 at its center.... A screw or some form of pin may be anchored in the hole to attach the semiconductor device into intimate heat conducting relationship to the support.” Coe at col. 3, ll. 29-35. Since Coe discloses a particular attachment means – a screw or pin into a hole – there would be no reason to attempt to use a mounting ridge and clip as claimed in the present application.

Moreover, it appears that an attachment arrangement such as that disclosed in Coe limits the location and number of components that can be attached to any given one of the supports 66, since there is only a single hole 68 in each. Apparently, if different components or layouts of components is desired, additional holes would need to be drilled. In comparison, the mounting ridge arrangement recited in claims 7 and 13 allows for attaching a variety of components or locations of components to the heat sink.

Still further, claims 7 and 13 recite “a substantially flat side that defines a plane oriented generally tangential to the tubular body....” Figure 2 of the present application is reproduced below.



The flat side 32 of the heat sink is generally tangential to the body of the heat sink 30 – the plane defined by the flat side 32 does not intersect the body 30. In contrast, the mounting surfaces 22/66 of Coe each define a plane that intersects the central tube 20 of the Coe device.

Also, as noted above, Coe fails to disclose a mounting ridge extending from such a flat exterior side of a tubular body. To the extent the mounting surface 22/66 of Coe is a flat surface, there is no mounting ridge receiving a mounting clip extending perpendicularly therefrom. Claim 13 further includes “a circuit board having one end attached to the flat side of the tubular body such that the circuit board extends generally perpendicular to the flat side of the tubular body.” Coe fails to disclose this element. As noted above, Coe only appears to disclose fastening components to the mounting surface 22/66 with a screw or pin received in a hole 68. There is no mention of a circuit board extending perpendicular to this surface.

As every element of the claimed invention is not identically shown or suggested by Coe, Applicant respectfully requests that the rejections of claims 7 and 13, and the claims dependent thereon, be withdrawn.

II. Rejection under 35 U.S.C. § 103

Sections 3-4 of the office action rejected claims 20, 32, 36, 37, 41 and 42 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Campbell (US 6,339,212) in view of Goetz et al. (US 5,717,189), Gandre et al. (US 5,828,549), and Earl et al. (US Patent No. 5,304,735). Claims 32, 36 and 37 have been deleted. Applicant respectfully traverses the rejection of remaining claims 20, 41 and 42.

According to MPEP § 706.02(j), for a claim to be obvious, there must be a) a suggestion or motivation to combine reference teachings, b) a reasonable expectation of success, and c) the references must teach all of the claim limitations, *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). The Examiner has not identified any teaching or suggestion with the cited art of reference for combining the references in the manner suggested by the Examiner.

None of the cited references suggest combining the teachings. Furthermore, the cited references do not teach all of the claim limitations for pending claims 20, 41 and 42. Specifically, claim 20 recites similar structure for a heat sink as discussed in conjunction with claims 7 and 13 above. Among other things, independent claim 20 includes

the exterior surface of the tubular body defining at least one generally flat side defining a plane oriented generally tangential to the tubular body, the circuit board having one end connected to the flat side such that the circuit board extends generally perpendicular to the flat side of the tubular body, wherein the flat side contacts the plurality of components to remove heat from the components;

a mounting ridge extending from the flat side of the tubular body and oriented generally perpendicular to the flat side of the tubular body such that the mounting ridge extends generally parallel to the circuit board; and

a plurality of clips to hold the plurality of components against the flat side of the tubular body, each of the clips having a first end received by the mounting ridge and a second end contacting a respective component.

The office action appears to rely on the combination of Gandre and Earl as teaching the specifics of the claimed heat sink. However, the office action fails to specifically point out where the particular limitations are disclosed or suggested in Gandre or Earl. These references, either individually or in combination, do not appear to disclose, for example,

- a tubular body defining at least one generally flat side defining a plane oriented generally tangential to the tubular body,
- a mounting ridge extending from the flat side of the tubular body and oriented generally perpendicular thereto,
- circuit board having one end connected to the flat side such that the circuit board extends generally perpendicular to the flat side of the tubular body

Accordingly, Applicant respectfully contends that claim 20, and claims 41 and 42 dependent thereon, are in condition for allowance.

Section 5 of the office action rejected claims 33-35, 39 and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Campbell in view of Goetz, Gandre and Earl as

applied above, and further in view of Coe or McAdam et al. (US 3,277,346). Claims 33-35 have been canceled. Claims 39 and 40 depend from claim 20, so they are patentable for at least the same reasons outlined above.

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CONCLUSIONS

As evidenced by the foregoing amendments and remarks, Applicants have made a genuine effort to address each concern raised in the office action. All of the pending claims are believed to be in condition for allowance. The Examiner is invited to contact the undersigned attorney with any concerns or questions regarding the present application.

Respectfully submitted,

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